PRO2

Professional Dual Bus Control System

Crestron 2-Series Control Systems are the brain of a complete integrated AV or automation solution. Every audio, video, and environmental element of the home, boardroom, classroom, or command center becomes integrated and accessible through the control system. Crestron 2-Series control systems are unmatched for power, performance and scalability, providing the ideal choice for today's demanding control applications.

The flagship PRO2 is designed for medium to large-scale commercial and residential control applications. Six built-in COM ports, eight IR/Serial ports, eight I/O Versiports, eight isolated relays, and optional Ethernet provide the essential interface for control of numerous devices including video projectors, plasma displays, switchers, DVD players, screens, lifts, and much more. The PRO2 features a built-in power supply, with power available to support external Cresnet devices including touchpanels, keypads and expansion modules.

2-Series Engine
At the heart of the PRO2 is the powerful 32-bit Freescale ColdFire® processor. Crestron's exclusive enhanced real-time operating system makes the PRO2 the fastest, most reliable control system available.

Dual Bus Architecture
The PRO2's unique dual-bus architecture affords ultra fast communications. The 40Mbps Y-Bus provides a high-speed backplane for IR, serial, and other integrated control ports. Additional control ports and interfaces like MIDI and digital audio processing may be added by installing up to three Y-Bus control cards. At a blazing 300Mbps, the Z-Bus supports Fast Ethernet with future support for other emerging technologies.

Cresnet®
Cresnet is the communications backbone for many Crestron touchpanels, keypads, lighting controls, and other devices. The Cresnet bus is a simple, yet flexible 4-wire network that provides rock-solid bidirectional communication and power for up to 252 Cresnet devices.

Cresnet Slave Mode
Selectable Cresnet Slave Mode enables the PRO2 to be configured as a Cresnet slave device, effectively transforming it into a Cresnet expansion module. Such flexibility can offer a cost-effective solution for system expansion, providing a host of additional control ports in a single module.

Ethernet
Crestron pioneered the IP-based control system to harness the vast possibilities of Ethernet and the Internet for remote control, monitoring,
programming, and diagnostics, and the PRO2 is designed to deliver the world's most advanced IP control solution. A choice of single or dual port Ethernet cards enables a full-duplex 10/100 Ethernet connection with built-in Web server and email client, and support for both static and dynamic IP addressing.

e-Control®2
Crestron's award-winning e-Control 2 XPanel solutions offer the most flexible range of IP control possibilities available. Using a Windows® computer or CE/PocketPC™ PDA device, e-Control 2 provides an amazing control GUI that looks and behaves just like a Crestron Isys® touchpanel.

RoomView™
Every Ethernet-enabled 2-Series control system works directly with Crestron's exclusive RoomView Help Desk software for the industry's most
comprehensive facility-wide asset management solution.

SNMP
Built-in SNMP support enables network management of Crestron control systems using third-party SNMP software. As an alternate or supplement to RoomView, SNMP allows full control and monitoring from the IT Help Desk or NOC in a format that's familiar to IT personnel.

SSL
All Ethernet-enabled 2-Series control systems support SSL (Secure Sockets Layer), the industry standard for protecting sensitive network communications.

NAT
The PRO2's onboard NAT (Network Address Translator) acts as a firewall and router to facilitate the configuration of a private control LAN with a single-point connection to the client's LAN (Dual-port Ethernet card required).

Memory Expansion
A memory card slot accessible on the rear panel allows for easy expansion of the PRO2's internal memory using any Type II Compact Flash memory card up to 2 GB.

Front Panel Control
The PRO2 includes a programmable front control panel with LCD display and control port status indicators. The PRO2's front panel serves as a ready user interface for system configuration and diagnostics, and can also be custom programmed to enable menu-driven control capability.

> 2-Series engine | Dual-bus architecture

> Compact Flash memory card slot

PRO2 Professional Dual Bus Control System

> Cresnet port - master/slave selectable

> 10/100 Ethernet capable | SSL encryption

> e-Control 2 and RoomView enabled

> SNMP support | Built-in firewall, NAT and router

> 6 Com ports, 8 IR/serial ports, 8 Versiport I/O ports, 8 Relay ports

> 3 Y-Bus / 1 Z-Bus control card expansion slots

> Internal power supply | 2-Space EIA rack-mountable

> Front control panel with LCD display

SPECIFICATIONS

Processor

CPU: 32-bit Freescale ColdFire® Microprocessor

Memory

SDRAM: 64 MB
NVRAM: 256 KB
Flash: 4 MB
Compact Flash: expandable up to 2 GB (not included)

Operating System

Real-time, preemptive multi-threaded/multitasking kernel; FAT32 file system with long names; supports SIMPL™ Windows® and SIMPL+®

Ethernet

With C2ENET-1: 10/100BaseT, auto-negotiating, full/half duplex, static IP or DHCP/DNS, SSL, TCP/IP, UDP/IP, CIP, SMTP, SNMP, built-in Web server and e-mail client; supports Crestron e-Control®2 XPanel and RoomView™ applications
With C2ENET-2: All above features plus: built-in firewall, router, and network address translator (NAT)

Y-Bus Connectors & Expansion Slots

40 Mb/s parallel communications;
Internal backplane for integrated control ports and Y-Bus expansion slots
COM A - F: (6) DB9 male, bidirectional RS-232/422/485 ports;
Up to 115.2k baud;
Hardware and software handshaking support;
Ports C-F support C2N-NPA8 Network Poll Accelerator
INFRARED-SERIAL OUTPUT A - H: (8) 2-pin 3.5mm detachable terminal blocks, IR/Serial output ports;
IR output up to 1.2 MHz;
1-way serial TTL/RS-232 (0-5 Volts) up to 115.2k baud;
Individual signal generator per port allowing simultaneous firing of all ports
I/O Versiports 1 - 8: (1) 9-pin 3.5mm detachable terminal block comprising (8) digital input/output or analog input ports (referenced to GND);
Digital Input: Rated for 0-24 Volts DC, input impedance 20k ohms, logic threshold 1.24 Volts DC;
Digital Output: 250mA sink from maximum 24 Volts DC, catch diodes for use with “real world” loads;
Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 20k ohms;
Programmable 5 Volts, 2k ohms pull-up resistor per pin
RELAY OUTPUT 1 - 8: (2) 8-pin 3.5mm detachable terminal blocks comprising (8) normally open, isolated relays;
Rated 1 Amp, 30 Volts AC/DC;
MOV arc suppression across contacts
Expansion Slots: (3) Y-Bus expansion slots;
Accept all Y-Bus control cards

Z-Bus Expansion Slots

300 Mb/s parallel communications;
Backplane for Z-Bus expansion slots
Expansion Slot: (1) Z-Bus expansion slot;
Accepts all Z-Bus control cards

Additional Connectors

COMPUTER: (2) DB9 female;
Front and rear panel RS-232 computer console ports
NET: (1) 4-pin 5mm detachable terminal block;
Cresnet port, Master/Slave selectable;
Expandable via C2N-NPA8 Network Poll Accelerator
100-250V~2.3A
50/60 Hz(1) IEC Socket;
Mates with removable power cord, included
Ground: (1) 6-32 screw, chassis ground lug

Reset Buttons

HW-R: Hardware reset (reboots the control system)
SW-R: Software reset (restarts the SIMPL program)

Menu Buttons

FUNCTIONS: (6) Up to 6 dynamically assigned functions based upon current menu
MENU: (1) Returns the LCD display to the MAIN menu
UP, DOWN: (2) Scroll up or down through any list displayed in the LCD display
BKLT: (1) Toggles through 4 levels of backlight intensity for the LCD display
Refer to the Operations Guide for additional menu functions

LCD Display

(2) lines, (40) characters per line;
Reverse mode (yellow and black) backlit LCD;
Displays system information, configuration menus, and custom programmable user functions

LED Indicators

PWR: (1 green) Indicates AC power supplied to unit
NET: (1 yellow) Indicates Cresnet bus activity
MSG: (1 red) Indicates control system has generated an error message
LNK A: (1 red) Indicates a valid connection on LAN port A
ACT A: (1 red) Indicates activity on LAN port A
LNK B: (1 red) Indicates a valid connection on LAN port B
ACT B: (1 red) Indicates activity on LAN port B
COM A - F
(TXD, RXD, RTS, CTS) (24 red) Indicate activity on each respective COM port
IR-SERIAL A - H : (8 red) Indicate activity on each respective IR/Serial port
INPUT-OUTPUT 1 - 8 : (8 red) Indicate activity on each respective I/O Versiport
RELAY 1 - 8 : (8 red) Indicate contact closure at each respective relay port
SLOT 1 - 3 : (3 red) Illuminates to indicate presence of a card in the respective expansion slot; extinguishes momentarily to indicate activity

Power Requirements

Main Power : 2.3 Amps, 100-250 Volts AC, 50/60 Hz
Available Cresnet Power: 50 Watts (shared with control card expansion slots)

Crestron Electronics, Inc. 15 Volvo Drive I Rockleigh, NJ 07647
Tel: 800.237.2041 / 201.767.3400 I Fax: 201.767.1905
www.crestron.com

PRO2 Professional Dual Bus Control System

Environmental

Temperature: 41° to 113°F (5° to 45°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Steel, black matte powder coat finish
Faceplate: Extruded aluminum, black matte powder coat finish with polycarbonate label overlay
Mounting: Freestanding or 2U 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

Height: 3.56 in (9.04 cm);
3.47 (8.81 cm) without feet
Width: 17.03 in (43.26 cm);
19.0 in (48.26 cm) with ears
Depth: 10.36 in (26.31 cm)

Weight

8.0 lb (3.62 kg) - with line cord

Available Models

PRO2: Professional Dual Bus Control System

Available Accessories

C2COM-2: 2 Port RS-232/422/485 Card for Y-Bus Expansion Slot
C2COM-3: 3 Port RS-232/422/485 Card for Y-Bus Expansion Slot
C2ENET-1: Single Port Ethernet Card for Z-Bus Expansion Slot
C2ENET-2: Dual Port Ethernet Card for Z-Bus Expansion Slot
C2IR-8: 8 Port Infrared/Serial Output Card for Y-Bus Expansion Slot
C2N-HBLOCK: Multi-type Cresnet Distribution Block
C2N-NPA8: Cresnet Network Poll Accelerator [Limited Supply]
C2N-SPWS300: Cresnet Power Supply, 300 Watts
C2N-VEQ4: 4-Channel Volume/EQ Control Module
CNSP-XX: Custom Serial Interface Cable
CNXAO-8: 8 Analog Output Card for Y-Bus Expansion Slot
CNXIO-16: 16 Port Versiport Card for Y-Bus Expansion Slot
CNXMIDI: MIDI Interface Card for Y-Bus Expansion Slot
CNXRY-16: 16 Relay Card for Y-Bus Expansion Slot
CNXRY-8: 8 Relay Card for Y-Bus Expansion Slot
IRP2: IR Emitter Probe

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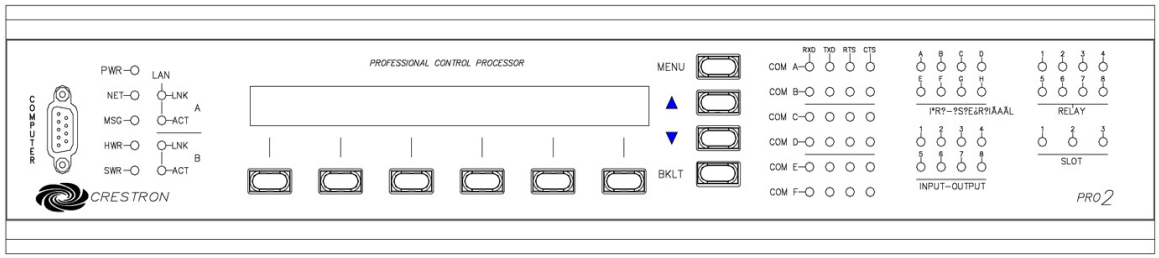
Front



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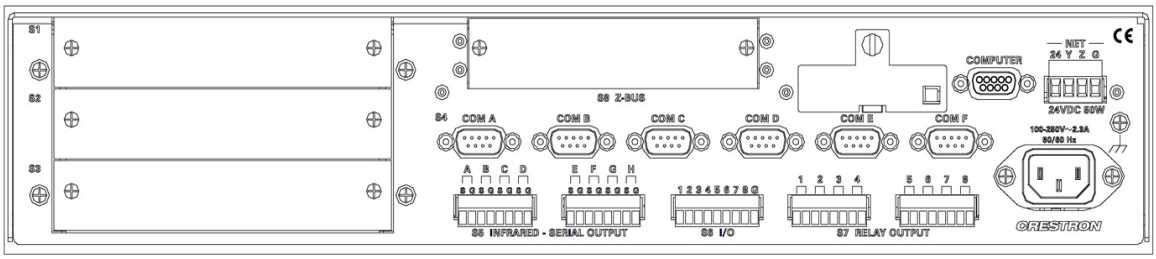

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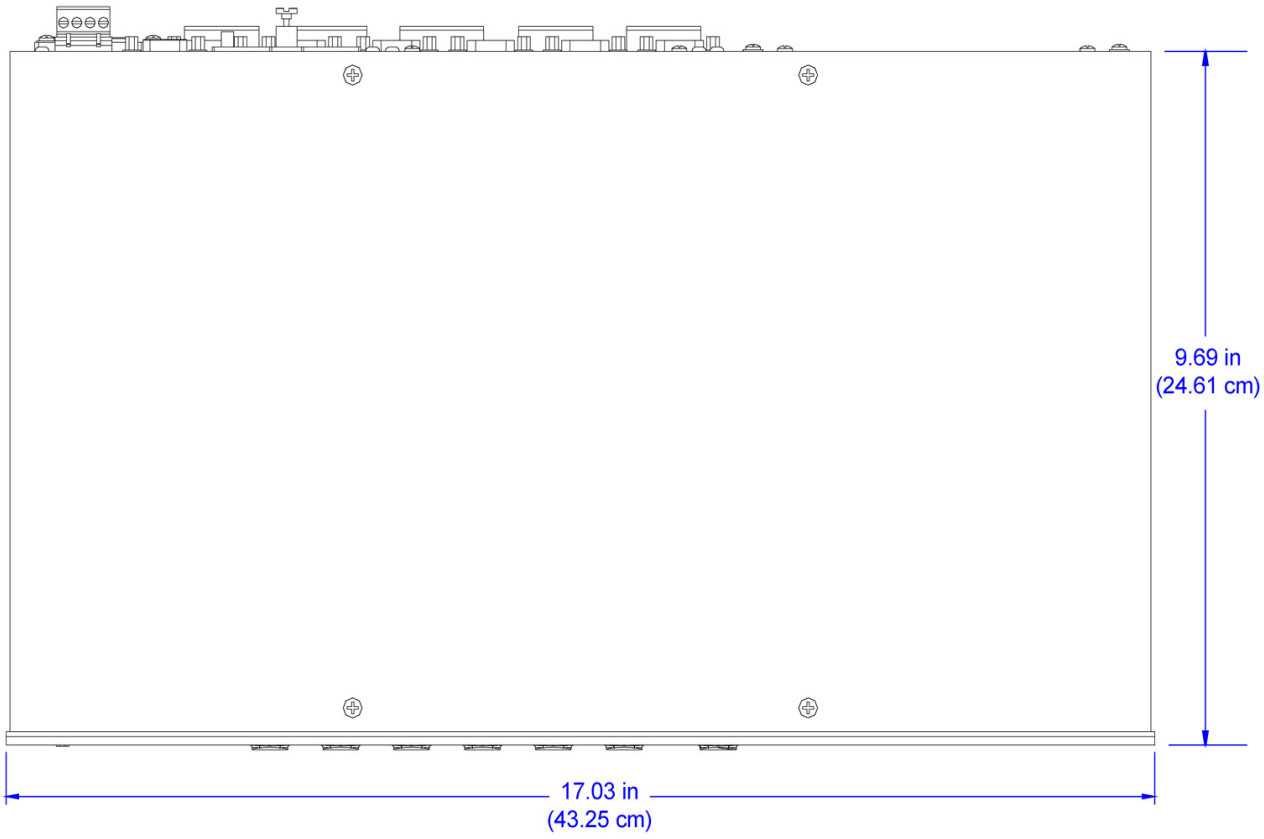

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